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(54) SURFACE COATED WITH AMINO GROUPS

(57) Abstract:

PROBLEM TO BE SOLVED: To produce a surface improved in properties and coated with amino groups capable of being converted into a deriv. and obtain a specific bonded phase having high sensitivity and specificity by coating a surface with a polymerizable amine by using pulse plasma.

SOLUTION: Pulse plasma is generated with a plasma generator shown by the figure. Electrodes 12 and 14, a pulse-generating circuit 16, a high-frequency-generating apparatus 18, a counter 20, a high-frequency amplifier 22, a wattmeter 24, a bidirectional coupler 26, an oscilloscope 28, and a matching network 30 are installed in a vacuum container 10. A surface 32 to be coated is placed between electrodes 12 and 14 in the container 10. The reactor is evacuated with a vacuum pump 34, and a polymerizable amine (e.g. allylamine) is supplied through an inlet 36. The pressure is monitored with a pressure-measuring apparatus 38. Pulse plasma of the amine is generated by the on-off of the power. A specific bonded couple (e.g. antigen-antibody) is covalently bonded to this amino-group surface.

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